CLAIMS

What is claimed is:

1. A web-based work management system, the system comprising:

a central management server configured to communicate through a wide area network, the central management server being configured to maintain a set of tasks to be scheduled and performed at a first facility, where each task has associated therewith a graphical icon representing the task, the central management server being further configured to allocate a first subset of tasks to a first user for performance of the tasks, and where the central management server is further configured to receive a first request message corresponding to the first user and, responsive thereto, transmit a first work schedule message that includes the icons corresponding to the first subset of tasks; and

a first client device corresponding to the first facility, the first client device being configured to communicate with the central management server through the wide area network, where the first client device includes a user interface for receiving user input and displaying user data, where the first client device is configured to receive a login request from the first user and, responsive thereto, transmit the first request message corresponding to the first user, and where the first client device is further configured to receive the first work schedule message and, responsive thereto, display the icons received in the first work schedule message.

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2. The web-based work management system of claim 1, where:

each graphical icon representing a task includes a status dialog box that may be selected to update a status of the task;

the first client device is further configured to display the status dialog box with each of the icons received in the first work schedule message, and where the first client device is configured to detect selection of the status dialog box with respect to a selected one of the icons received in the first work schedule message and, responsive thereto, send a task update message that identifies the task corresponding to the selected one of the icons associated with the selected status dialog box and the status of the task; and

the central management server is further configured to receive the task update message and, responsive thereto, update a task record corresponding to the task identified in the task update message with the status of the task identified provided in the task update message.

3. The work management system of claim 2, where the central management server is further configured to receive a status request from a supervisory user for the status of the first subset of tasks, verify that the supervisory user is permitted access to the status of the first subset of tasks, and return a status reply message to the supervisory user.

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4. The work management system of claim 3, where the central management server is further configured to receive a status update request from the supervisory user that requests a change of the status of at least one of the first subset of tasks and, responsive thereto, update the task record corresponding to the at least one of the first subset of tasks.

5. The work management system of claim 4, where the central management server is further configured to detect whether the change of the status of the at least one of the first subset of tasks is a rejection of a completed task and, responsive thereto, create an alert message for output to the first user.

6. The work management system of claim 5, where the central management server is further configured to include the alert message for output to the first user into a subsequent request message from the first user.

7. The work management system of claim 2, where the central management server is further configured to detect an uncompleted task in the first subset of tasks and, responsive thereto, reschedule the uncompleted task.

8. The work management system of claim 1, where:

each graphical icon representing a task includes an instruction dialog box that may be selected to request an instruction corresponding to the task;

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the first client device is further configured to display the instruction dialog box with each of the icons received in the first work schedule message, and where the first client device is configured to detect selection of the instruction dialog box with respect to a selected one of the icons received in the first work schedule message and, responsive thereto, send an instruction request message to the central management server that identifies the task corresponding to the selected one of the icons associated with the selected instruction dialog box, and where the first client device is further configured to receive an instruction file from the central management server and display the instruction file to the first user; and

the central management server is further configured to receive the instruction request message and, responsive thereto, obtain the instruction file corresponding to the task identified in the instruction request message and transmit the instruction file to the first client device.

9. The work management system of claim 1, where:

each graphical icon representing a task includes an instruction dialog box that may be selected to request an instruction corresponding to the task;

the first client device is further configured to display the instruction dialog box with each of the icons received in the first work schedule message, and where the first client device is configured to detect selection of the instruction dialog box with respect to a selected one of the icons received in the first work schedule message and, responsive thereto, send an instruction request message to the central management server that identifies the task corresponding to the selected one of the icons associated

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with the selected instruction dialog box, and where the first client device is further configured to receive an instruction file from the central management server and display the instruction file to the first user; and

the central management server is further configured to receive the instruction request message and, responsive thereto, obtain the instruction file corresponding to the task identified in the instruction request message and corresponding to a preselected language associated with the first user, and transmit the instruction file to the first client device.

10. The work management system of claim 1, where:

each graphical icon representing a task includes a map dialog box that may be selected to request a map corresponding to the task;

the first client device is further configured to display the map dialog box with each of the icons received in the first work schedule message, and where the first client device is configured to detect selection of the map dialog box with respect to a selected one of the icons received in the first work schedule message and, responsive thereto, send a map request message to the central management server that identifies the task corresponding to the selected one of the icons associated with the selected map dialog box, and where the first client device is further configured to receive a map file from the central management server and display the map file to the first user; and

the central management server is further configured to receive the map request message and, responsive thereto, obtain the map file corresponding to the task

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identified in the map request message and transmit the map file to the first client device.

11. The work management system of claim 1, where:

the central management server is further configured to receive a message file for delivery to the first user and to transmit the message file to the first client device; and

the first client device is further configured to receive the message file and, responsive to a login request by the first user, display the message file.

12. The work management system of claim 11, where the central management server is further configured to permit a supervisory user to generate the message file for delivery to the first user.

13. The work management system of claim 1, where:

the central management server is further configured to allocate a second subset of tasks to a second user for performance of the tasks, and where the central management server is further configured to receive a second request message corresponding to the second user and, responsive thereto, transmit a second work schedule message that includes the icons corresponding to the second subset of tasks; and

the first client device is further configured to receive a login request from the second user and, responsive thereto, transmit the second request message

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corresponding to the second user, and where the first client device is further configured to receive the second work schedule message and, responsive thereto, display the icons received in the second work schedule message.

14. The work management system of claim 13, where the central management server is further configured to restrict the first user from accessing the second subset of tasks and to restrict the second user from accessing the first subset of tasks.

15. The work management system of claim 1, where the central management server is further configured to generate the set of tasks in accordance with a first set of policies corresponding to a first customer associated with the first facility.

16. The work management system of claim 15, where the central management server is further configured to generate another set of tasks in accordance with a second set of policies corresponding to a second customer.

17. The work management system of claim 1, wherein the first client device includes a browser application for displaying data from messages from the central management server and the central management server is further configured to provide messages to the first client device that are compatible with the browser application.

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18. The work management system of claim 1, where the first client device includes one of a touch screen interface device, a pen-based input device, a keypad input device, and a card-swipe device.

19. A method for managing work at a facility, the method comprising:

receiving a first message on a central management server, the first message including a first set of information including tasks to be scheduled and performed at a first facility;

generating a first work schedule for a first user selected to perform the first work schedule at the first facility;

sending a second message from the central management server to the first facility, the second message including the first work schedule;

receiving a third message on the central management server from the first facility, the third message including task status update data corresponding to the first work schedule;

updating a status of each task in the first work schedule based upon the task completion data received in the third message; and

sending a fourth message from the central management server to the first facility, the fourth message including the status of each task in the first schedule

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20. The method of claim 19, further comprising the steps of:

receiving a first work status request message from the first facility on the central management server;

compiling the status for the first work schedule into a first work status report; and

sending the first work status report to the first facility.

21. The method of claim 20, further comprising the steps of:

receiving a second task update message including a changed status for a selected task of the first work schedule shown in the first status report;

updating the status for the selected task based on the changed status received in the second task update message.

22. The method of claim 21, where the step of receiving a first message on a central management server further comprises receiving a first on a central management server from an external application, where the first message includes a first set of information generated by the external application, the first set of information including tasks to be scheduled and performed at a first facility.

23. The method of claim 22, the method including the step of sending the changed status for the selected task to the external application.

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24. The method of claim 20, further comprising the steps of:

monitoring a status of each task specified in the first work schedule using the task status update data received from the first facility;

detecting that the status for a task indicates that the task is uncompleted; and

rescheduling the uncompleted task responsively to detecting the uncompleted task status.

25. The method of claim 24, further comprising the step of sending an alert message from the central management server to a manager of the first facility associated with the uncompleted task.

26. The method of claim 20, further comprising the step of generating performance statistics for the first facility using data from the first work schedule and task update messages from the first facility.

27. The method of claim 20, further comprising the steps of:

generating a second work schedule for a second facility managed on the central management server; and

storing the second work schedule and status for each task specified in the second work schedule in the database on the central management server.

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28. The method of claim 27, generating the first and second work schedules in accordance with a first set of policies corresponding to a first customer associated with the first and second facilities.

29. The method of claim 28, further comprising the step of generating a third work schedule for a third facility associated with a second customer, wherein the third work schedule is generated based on a second set of policies corresponding to the second customer.

30. A method for managing work at a facility, the method comprising:

sending a first message from a first client device to a central management server, the first message defining a first set of information including tasks to be performed and scheduled at the first facility;

receiving a second message from the central management server on the first client device, the second message including a first work schedule for a first user selected to perform the first work schedule at the first facility;

displaying the first work schedule to the first user on an electronic management interface associated with the first client device;

receiving a first user input for a task specified in the first work schedule via the electronic management interface, the user input indicating a task completion;

generating a third message on the first client device, the third message including task completion data corresponding to the first work schedule;

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sending the third message from the first client device to the central management server; and

receiving a fourth message from the central management server on the first client device, the fourth message including status of each task in the first work schedule.

31. The method of claim 30, further comprising the steps of:

receiving a request for a first work status report from a supervisory user via the electronic management interface;

sending a first work status request from the first client device to the central management server responsive to receiving the request from the supervisory user;

receiving a first work status report from the central management site on the first client device; and

displaying the first work status report to the supervisory user via the electronic management interface.

32. The method of claim 31, further comprising the steps of:

changing a status of a selected task of the first work schedule shown in the first work status report by the supervisory user via the electronic management interface; and

sending a second task update message including the changed status for the selected task from the first client device to the central management server.

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33. A fixed location interface unit configured to permit information transfer between an end user and a central management server, the interface unit comprising:

means for establishing a communication link between the fixed location interface unit and the central management server upon activating the fixed location interface unit;

an electronic interface configured to display a first work schedule to a first user and being further configured to receive from the first user task completion status data for each task in the first work schedule; and

a second application configured to generate a first task status update message upon receiving the task completion status data from the first user, the second application being further configured to send the first task status update message to the central management server.

34. The fixed location interface unit of claim 33, wherein the electronic interface includes a browser interface.

35. The fixed location interface unit of claim 34, wherein the electronic interface includes a graphical user interface.

36. The fixed location interface unit of claim 33, wherein the electronic interface includes one of a touch screen interface, a pen-based input device, a keypad input device, and a card-swipe device.

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37. The fixed location interface unit of claim 33, further including a third application configured to authenticate the first user before displaying the first work schedule on the electronic interface.

38. The fixed location interface unit of claim 37, wherein the third application comprises a voice recognition application or a card reader application configured to authenticate the first user.

39. The fixed location interface unit of claim 33, wherein the first work schedule displayed to the first user on the electronic interface includes an icon-based work schedule in which each task in the work schedule is represented by a task icon.

40. The fixed location interface unit of claim 39, wherein the icon-based work schedule comprises a color-coded task icon for each task in the first work schedule, the color-coded task icon utilized to define a priority level for each task, a warning regulation for each task or a location of work to be performed for each task at a first facility having the fixed location interface unit.

41. The fixed location interface unit of claim 33, further comprising a fourth application configured to permit a supervisory user to request a first work status report using the fixed location interface unit.

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42. The fixed location interface unit of claim 41, wherein the fixed location interface unit is further configured to receive the first work status report from the central management server, the first work status report comprising a work status data generated on the central management server based on a hierarchy level associated with the supervisory user.

43. The fixed location interface unit of claim 42, wherein the electronic interface is further configured to display the first work status report to the supervisory user.

44. The fixed location interface unit of claim 43, wherein the first work status report displayed on the electronic interface comprises on icon-based work status report in which each task specified in the work status report is associated with a task status icon.

45. A central management server configured to manage work on a plurality of facilities, the central management server comprising:

a database configured to store work schedules generated on the central management server for a plurality of facilities, and further being configured to store a plurality of facility records, a plurality of user records, a plurality of task identifiers for each task specified in the plurality of work schedules, and a plurality of instruction information records for each task;

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a first application configured to receive from a first set of information including tasks to be performed and scheduled for a first facility;

a second application configured to retrieve a first facility record from the database and generate a plurality of first facility work schedules for a plurality of first facility users selected to perform the tasks at the first facility; wherein the second application stores the plurality of first facility work schedules in the database;

a third application configured to generate an icon-based schedule for each of the plurality of first facility work schedules, wherein each task specified in the plurality of first facility work schedules is associated with a predetermined task icon;

a fourth application configured to receive a first work schedule request from a first user at the first facility, wherein the first user requests the first work schedule via a fixed location interface unit configured to permit information transfer between the plurality of first facility users and the central management server, the fourth application further configured to retrieve a first work schedule for the first user and send the first work schedule to the fixed location interface unit configured to display the first work schedule to the first user, wherein the first work schedule comprises a first icon-based work schedule; and

a fifth application configured to receive a first task status update message corresponding to the first work schedule and, responsive thereto, update a status of each task of the first work schedule based upon task completion data from the first task status update message.

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46. The central management server of claim 45, wherein the second application is further configured to generate a supervisory work schedule for a supervisor at the first site, wherein the supervisory work schedule comprises an inspection work schedule generated based on the plurality of first facility work schedules.

47. The central management server of claim 45, further comprising a sixth application configured to generate a plurality of work status reports using task completion data received from the plurality of facilities, wherein the work status reports comprise a plurality of data sets, each data set associated with a predetermined access identifier.

48. The central management server of claim 47, wherein the predetermined access identifier comprises a predetermined hierarchy identifier.

49. The central management server of claim 48, wherein the predetermined hierarchy identifier comprises a facility location identifier, a regional level identifier or a company level identifier.

50. The central management server of claim 47, wherein the sixth application is further configured to receive a request for a first work status report from a first supervisory user, and, responsive thereto, the sixth application is further configured to determine an access identifier associated with the first supervisory user

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and based on the determined access identifier, the sixth application being further configured to send a work status report corresponding to the access identifier associated with the supervisory user.

51. The central management server of claim 50, wherein the sixth application is further configured to receive a supervisory task status update message from the supervisory user, the supervisory task status update message including at least one changed status in the work status report provided to the supervisory user.

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52. The central management server of claim 51, wherein if the at least one changed status comprises a task unacceptably completed identifier for a task, the sixth application is further configured to determine an user associated with the task and mark an user record with a task unacceptably completed identifier.

53. The central management server of claim 45, further comprising a seventh application configured to track task completion on the first facility using the first work schedule and first task status update message received from the first facility.

54. The central management server of claim 53, wherein the seventh application is further configured to detect that a status for a task indicates that the task is uncompleted and, responsive thereto, reschedule the uncompleted task.

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55. The central management server of claim 54 wherein the seventh application is further configured to mark an user record associated with the uncompleted task with an uncompleted task identifier.

56. The central management server of claim 55, wherein the seventh application, responsive to detecting the uncompleted task, is further configured to send an alert message to a supervisor of the first facility.

57. The central management server of claim 45 further comprising an eight application configured to generate a performance statistics record for each user using task status update messages and supervisory task status update messages being received on the central management server from the first facility.

58. The central management server of claim 57, wherein the eight application is further configured to determine if any user requires training based on the performance statistics records, and if so, the eight application is further configured to provide training instruction to each user having low performance statistics, wherein the training instructions are displayed to each user via a corresponding one of the facilities.

59. A work management database system, the system comprising:

a server configured to maintain task information relating to tasks to be scheduled and performed at a plurality of facilities, where the server maintains the

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task information in a predefined hierarchy based upon a business organization of the plurality of facilities, the server further maintaining data defining an access level of the hierarchy for each one of a plurality of users, where each user is permitted access to the defined access level for the user and any lower levels of the hierarchy, the server being configured to receive an access request with a user identifier corresponding to a requesting user and an access identifier corresponding to a requested level of access to the hierarchy, check whether the user is permitted access to the requested level and, if access is permitted, transmit a reply to the user that includes the task information for the requested level; and

a client configured to receive a user input from one of the plurality of users, the user input including the user identifier for the user and the requested level of access and, responsive thereto, transmit to the server the access request with the user identifier and the requested level of access, the client being further configured to receive the reply from the server and, responsive thereto, display the task information for the requested level.

60. The work management database system of claim 59, where:

the server is further configured to include in the reply to the user information describing a portion of the hierarchy to which the user is permitted access; and

the client device is further configured to graphically display the portion of the hierarchy to which the user is permitted access.

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61. The work management database system of claim 59, where:

the client device is further configured to receive a broadcast message file from a high level user and transmit to the server a broadcast message request from that includes a user identifier for the high level user and the broadcast message file; and

the server is further configured to receive the broadcast message request, determine an access level for the high level user based on the user identifier from the broadcast message request, identify from the high level user's access level all the users below the high level user's access level in the hierarchy, and, responsive to a login request from each of the identified users below the high level user's access level in the hierarchy, output the broadcast message to the user sending the login request.

62. The work management database system of claim 59, where:

the client device is further configured to receive a broadcast message file from one user and transmit to the server a broadcast message request that includes the broadcast message file; and

the server is further configured to receive the broadcast message request, determine a predetermined set of users to receive the broadcast message and, responsive to a login request from each of the predetermined set of users, output the broadcast message to the user sending the login request.

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